

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

CONFIRMATION NO. APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. 03400/LH 8940 10/620,898 07/15/2003 Kinichirou Watanabe

07/21/2004 FRISHAUF, HOLTZ, GOODMAN & CHICK, PC **767 THIRD AVENUE** 25TH FLOOR NEW YORK, NY 10017-2023

KWON, JOHN ART UNIT PAPER NUMBER

EXAMINER

3747 DATE MAILED: 07/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Editations of time may be available under the procisions of 3°CFR 1.15(6). In no event, however, may a reply be limely lited Editations of time may be available under the procisions of 3°CFR 1.15(6). In no event, however, may a reply be limely lited Editation of the period for reply specified above is less than thirty (30) days, a neply within the statistery minimum of lithy (30) days will be considered sinely. If the period for reply specified above is less than thirty (30) days, a neply within the statistery minimum of lithy (30) days will be considered sinely. If the period for reply specified above is less than thirty (30) days, a neply within the statistery minimum of the time and increase of the communication. Palsia to neply within the soft or catenoted pround for reply will. by statute, cause the application to become ABANDONED (38 U s.C. § 133). Responsive to communication(s) filled on		Application No.	Applicant(s)	
John T. Kwon Jo	Office Astion Commence	10/620,898	WATANABE ET AL.	
- The MALING DATE of this communication appears on the cover sheet with the correspondence address—Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Femenics of this may be available used the provisions of 3 CSR 1.18(a). In or evert, however, may a reply be timely filed Fith period for mayby specified above is less than thirty (30) stays, a reply within the statutory minimum of thirty (30) stays will be considered timely. If the period for reply specified above is less than thirty (30) stays, a reply within the statutory minimum of thirty (30) stays a legication for the period of the communication. If the period for reply specified above is the statutory period all graph and its graph (40) MONTHS from the maining date of this communication. If the period for reply specified above is the statutory period all graph and its graph and graph and its graph and graph a	Oπice Action Summary	Examiner	Art Unit	
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. 1 HIS MAILING DATE OF THIS COMMUNICATION. 1 HIS PORT of reply specified above is less than thrift (30) days will be considered timely. 1 HIS Debtod for reply is specified above, the maximum shalloor period will apply and will opine SIX (6) MONTHS from the maining date of this communication. 1 HIS Debtod for reply is specified above, the maximum shalloor period will apply and will opine SIX (6) MONTHS from the maining date of this communication. 1 HIS Debtod for reply is specified above. The maximum shalloor period will apply and will opine SIX (6) MONTHS from the maining date of this communication. 2 HIS DEBTO (3) HIS SHALL (3)				
THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provision of 3 r CFR 1 13(6). In no event, however, may a raply be timely filed atter SX (5) MCNPT St floor the mailing date of this communication of the	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply			
This action is FINAL. 2b) This action is non-final. 3	THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any			
2a) This action is FINAL. 2b) This action is non-final. 3 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-24 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-3.9.14.15 and 20 is/are rejected. 7) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1.	Status			
3 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4 Claim(s) 1-24 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5 Claim(s) is/are allowed. 6 Claim(s) is/are allowed. 6 Claim(s) 1-3.9.14.15 and 20 is/are rejected. 7 Claim(s) are subject to restriction and/or election requirement. Application Papers 9 The specification is objected to by the Examiner. 10 The drawing(s) filed on is/are: a accepted or b objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11 The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12 Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b Some co None of: 1. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received.	1) Responsive to communication(s) filed on	<u>.</u> .		
Closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-24 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-3.9,14,15 and 20 is/are rejected. 7) Claim(s) 4-8,10-13,16-19 and 21-24 is/are objected to. 8) Claim(s) is/are subject to restriction and/or efection requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received. *Attachment(s)	2a) ☐ This action is FINAL . 2b) ☐ This	action is non-final.		
A) Claim(s) 1-24 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) □ Claim(s) is/are allowed. 6) □ Claim(s) 1-3.9.14.15 and 20 is/are rejected. 7) □ Claim(s) 4-8.10-13.16-19 and 21-24 is/are objected to. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☑ All b) □ Some * c) □ None of: 1. ☑ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received. **Attachment(s)** **Di Notice of References Cital (PTO-892) Motice of Draftsperson's Patent Drawing Review (PTO-948) Motice of Draftsperson's Patent Drawing Review (PTO-158) Motice of Toratsperson's Patent Application (PTO-152)	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is			
4) ☐ Claim(s) 1-24 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-3.9.14.15 and 20 is/are rejected. 7) ☐ Claim(s) 4-8.10-13.16-19 and 21-24 is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.			
4a) Of the above claim(s) is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) ☒ Claim(s) is/are allowed. 7) ☒ Claim(s) is/are allowed. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) □ Some * c) □ None of: 1. ☒ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 10 ☒ Notice of References Cited (PTO-892) 21 ☐ Copies of Paffsperson's Patent Drawing Review (PTO-948) 22 ☐ Dia Notice of Draftsperson's Patent Drawing Review (PTO-948) 23 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 24 ☐ Draftsperson's Patent Drawing Review (PTO-948) 25 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 26 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 27 ☐ Opies of Draftsperson's Patent Drawing Review (PTO-948) 28 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 29 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 20 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 20 ☐ N	Disposition of Claims			
4a) Of the above claim(s) is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) ☒ Claim(s) is/are allowed. 7) ☒ Claim(s) is/are allowed. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) □ Some * c) □ None of: 1. ☒ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 10 ☒ Notice of References Cited (PTO-892) 21 ☐ Copies of Paffsperson's Patent Drawing Review (PTO-948) 22 ☐ Dia Notice of Draftsperson's Patent Drawing Review (PTO-948) 23 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 24 ☐ Draftsperson's Patent Drawing Review (PTO-948) 25 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 26 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 27 ☐ Opies of Draftsperson's Patent Drawing Review (PTO-948) 28 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 29 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 20 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 20 ☐ N	4)⊠ Claim(s) 1-24 is/are pending in the application.			
5) ☐ Claim(s) is/are allowed. 6) ☒ Claim(s) is/are allowed. 6) ☒ Claim(s) is/are allowed. 7) ☒ Claim(s) is/are rejected. 7) ☒ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) ☐ Some * c) ☐ None of: 1. ☒ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. **Attachment(s)** Matchment(s)** Interview Summary (PTO-413)	· · · · · · · · · · · · · · · · · · ·			
To Claim(s) 4-8,10-13,16-19 and 21-24 is/are objected to. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☑ All b) □ Some * c) □ None of: 1. ☑ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. **Attachment(s)** Paper No(s)/Mail Date Paper No(s)				
Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received.	6)⊠ Claim(s) <u>1-3,9,14,15 and 20</u> is/are rejected.			
Application Papers 9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) ☐ Some * c) ☐ None of: 1. ☒ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 10 ☒ Notice of References Cited (PTO-892) 21 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 22 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 23 ☐ Notice of Informal Patent Application (PTO-152)	7)⊠ Claim(s) <u>4-8,10-13,16-19 and 21-24</u> is/are objected to.			
9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 10 Notice of References Cited (PTO-892) 21 Notice of Draftsperson's Patent Drawing Review (PTO-948) 22 Notice of Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 10 Notice of Informal Patent Application (PTO-152)	8) Claim(s) are subject to restriction and/or election requirement.			
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 10 Notice of References Cited (PTO-892) 21 Interview Summary (PTO-413) Paper No(s)/Mail Date 22 Paper No(s)/Mail Date 33 Notice of Informal Patent Application (PTO-152)	Application Papers			
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 10 Notice of References Cited (PTO-892) 21 Interview Summary (PTO-413) Paper No(s)/Mail Date 22 Paper No(s)/Mail Date 33 Notice of Informal Patent Application (PTO-152)	9)☐ The specification is objected to by the Examiner			
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)				
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some colon None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Notice of Informal Patent Application (PTO-152)	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).			
Priority under 35 U.S.C. § 119 12) △ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) △ All b) □ Some * c) □ None of: 1. △ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. *Attachment(s) Attachment(s) Attachment(s) Attachment(s) One is a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). One is a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). One is a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). One is a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). One is a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). One is a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). One is a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).				
12) △ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) △ All b) ☐ Some * c) ☐ None of: 1. △ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) Attachment(s) A Notice of References Cited (PTO-892) A Notice of Draftsperson's Patent Drawing Review (PTO-948) B Notice of Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.			
a) ⊠ All b) ☐ Some * c) ☐ None of: 1. ☑ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. *Attachment(s) Notice of References Cited (PTO-892)	Priority under 35 U.S.C. § 119			
Attachment(s)	 a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). 			
Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Notice of Draftsperson's Patent Drawing Review (PTO-948) Notice of Draftsperson's Patent Drawing Review (PTO-948) Notice of Informal Patent Application (PTO-152)	* See the attached detailed Office action for a list of the certified copies not received.			
Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Notice of Draftsperson's Patent Drawing Review (PTO-948) Notice of Draftsperson's Patent Drawing Review (PTO-948) Notice of Informal Patent Application (PTO-152)				
Paper No(s)/Mail Date Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Notice of Informal Patent Application (PTO-152)	Attachment(s)			
B) Moltice of Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) Notice of Informal Patent Application (PTO-152)	1) Notice of References Cited (PTO-892)	4) Interview Summary (PTO-413)	
	B) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) 🔲 Notice of Informal Pa		

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "... when the engine load becomes a predetermined load or lower in an engine stopping step of stopping the diesel engine while gradually reducing the engine load." is vague and indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Chen (US 6 325 044).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 3747

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 6 325 044) in view of Busser (US 4 379 332). Chen discloses a fuel injection timing control means for a diesel engine with a fuel injection timing advance depending upon the engine load is changed (Col. 4, lines 25-45). However, Chen does not show the use of the temperature detection means to control the injection timing. Busser shows that the provision of the temperature sensing means for control the injection timing is old and well known in the art (Col. 13, lines 14-23). Since the prior art references art from the same field of endeavor, the purpose disclosed by Busser would have been recognized in the pertinent art of Chen. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the device of Chen with a means for detecting the temperature as taught by Busser.

Claims 9, 14, 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 6 325 044) in view of Busser (US 4 379 332) as applied to claim 2 above, and further in view of Coleman (US 5 709 196). Chen as modified shows the diesel engine with the advanced fuel injection timing controlled by the temperature sensor as explained above, but does not show the use of the water emulsion fuel. Coleman show the use of a water emulsion fuel is old and well known in the art. Since the prior art references art from the same field of endeavor, the purpose disclosed by Coleman would have been recognized in the pertinent art of Chen as modified. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the device of Chen as modified with the water emulsion fuel as taught by Coleman.

Art Unit: 3747

Allowable Subject Matter

Claims 4-8, 10-13, 16-19, 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John T. Kwon whose telephone number is (703) 308-1046. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (703) 308-1946. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7766.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

ohn T. Kwon

Primary Examiner
Art Unit 3747